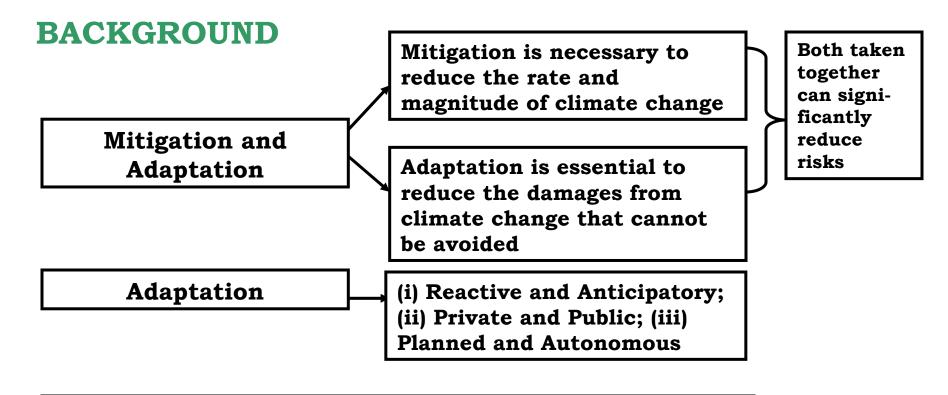


# ADAPTATION AND SUSTAINABLE LIVELIHOODS:

Policy Implications in the Challenging Hydro-climates of India

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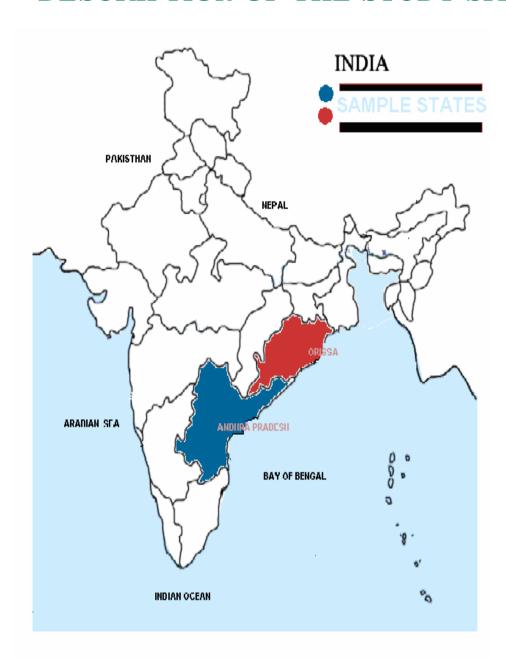


Both anticipatory and reactive adaptation can be planned through the result of deliberate policy decisions.

## **OBJECTIVES**

- To study different Adaptation Options to drought.
- To analyse the capability of the poor rural households to adapt with the changing pattern of livelihood.
- Key factors (policy, institutions and agent) that determine difference in outcome.

#### DESCRIPTION OF THE STUDY SITE



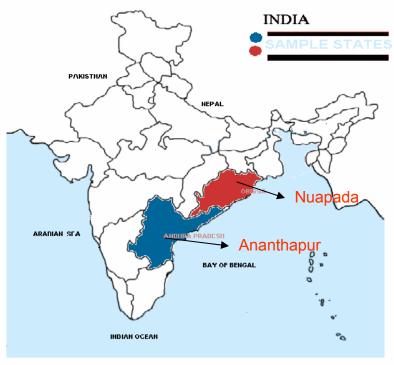
#### Climate in Orissa & AP

- Andhra Pradesh 23 districts in total,
   8 districts are frequently affected by drought.
- Orissa the coastal area is regularly hit by floods and cyclones, where as western part is drought prone.
- Both the states rains are erratic, winters have become warmer and the summers longer.
- Both the states the magnitude and intensity have been on the increase over the last few decades.

#### **DESCRIPTION OF THE STUDY SITE Contd..**

- Both the districts land of climatic contrast.
- SW monsoon- 61.2% in Ananthapur and 80% in Nuapada
- The rainfall of meteorological week 23- 42 decides the fate of the Kharif rainfall in both the districts.





#### **PROCESS**

Group Discussions
Leaders
Affected People

# STUDY SITE SELECTION

- → Selection of Districts
- $\rightarrow$  Selection of Villages
- → Selection of Households

**Selection of Districts** were based on the criteria of maximum loss during the last drought.

**Selection of Villages-** based on infrastructure index- infrastructure wise developed village (ID) and infrastructure wise under-developed village (IUD)

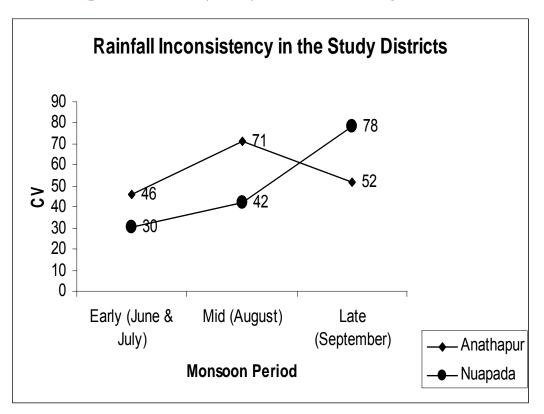
# Infrastructure Index: Power supply, Communication, Bank facility, agriculture society, Medical facility, drinking water LOW Infrastructure Village HIGH Infrastructure Village

**Selection of Households -** Circular Systematic Random Sampling to include people from all income group

#### DROUGHT IN NUAPADA AND ANANTHAPUR DISTRICT

- Erratic Rainfall
- Poor Irrigation Facilities
- · Agricultural Condition is precarious

#### Average Rainfall (mm)\* in the Study Districts\*\*



\* The South west monsoon is defined as early: June-July; mid: August; late: September; and South west monsoon: June- September

\*\* Rainfall Data in Ananthapur district in the state Andhra Pradesh corresponds to year 1951-2006 and in Nuapada district of the state Orissa corresponds to the year 1988-2008.

# **MAJOR FINDINGS**

#### Impact on Consumption Behaviour in the Study Districts of AP and Orissa

S. No	Household's behaviour on Consumption	Ananthapur	Nuapada
1	Frequency of intake - Normal Period - Disaster Period	2.4 1.9	2.0 1.7
2	% of HH reducing the number of meals	61	76
3	% of HH reducing the quantity of food	64	75

#### The Herfindahl Index for Livelihoods Diversification

S. No	Villages	No of Households	Diversification			
Study Villages in Ananthapur District of Andhra Pradesh						
1	Tallakaluva (IUV)	127	0.30			
2	Manesamudram (IDV)	141	0.63			
Study Villages in Nuapada District of Orissa						
1	Katingapani (IUV)	107	0.14			
2	Amalpali (IDV)	150	0.39			

# MAJOR FINDINGS Contd...

# Other Coping Strategies Adopted by the Affected people

S. No	Coping Strategies	Andhra Pradesh (Ananthapur)	Orissa (Nuapada)
1	Insurance	23	18
2	Distress Sale	52	48
3	Credit	34	46

# **Autonomous Adaptation**

- Adjustment of Food habit
- Occupational Diversification
- Distress Sale
- Migration

# **Planned Adaptation**

- Credit
- Insurance
- Diversification of Crop

## MAJOR FINDINGS Contd...

# Adaptive Capacity of Infrastructure wise Developed Village is better than that of the under-developed one

- More livelihood diversification;
- Facility of lift irrigation;
- Active SHG group linked with banks;
- Diversification with better crops;
- Subsidized foodgrain;
- Repeated government training programme

#### ROLE OF GOVERNMENT

- Successful Adaptation vs. Mal-adaptation
- Policy intention vs. Policy Practice

## Scenario in Orissa

- Safety net instruments: Food for Work, NREGS, Pradhan Mantri Sadak Yojana. etc.
- > Some of the programmes are ad-hoc in nature and does not have a long term perspective.
- > Consensual effort of government, NGO and communities.

## Scenario in Andhra Pradesh

- > Seed and Pesticide Act 1966
- > AP Water, Land and Tree Act
- > Comprehensive Market Act 1966
- > Down Sizing the staffs in Agriculture Extension Services
- > Rythu Bandu Padakam (loan facility) and Rythu Mithra Scheme

#### ROLE OF GOVERNMENT Contd...

# **Financing Adaptation**

- > Continuous financial support
- > Converging funds instead of creation of a new one
- > Developmental works need to be channelized through the NREGS.
- > SHGs can be empowered through soft loans at subsidized rate.

